Improving Decision Support for the Warfighter

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Decision Support Tools for JFACC

Description / Background

- Warfighters need the right tools to train, plan, fight, and win
- NIMBLE LION reinforced usefulness of decision support for crisis action planning (CAP) / operational rehearsal
  - Proved need for M&S improvement

Actions / Issues

- There is no quantitative method for evaluating alternative COAs or ATOs
  - M&S can satisfy the need
- TBMCS development does not address CAP near-term; JFACC Planning Tool also has need for new simulation engine
- Air Expeditionary Force taskings and information saturation will

Focus / Status

- EFX 99 objectives include more realism in CAP and early force movement
- Coordinate proposed EFX99 initiative with C2TIC, C2 Battle Lab, ESC/DIS by EFX Initial Experimentation Conference, 17-19 November

Recommendations

- Support EFX 99 initiative to include M&S tools for CAP and rehearsal
- Look for off-the-shelf simulations and visualization systems
- Use active, updated C2 databases to populate simulation data
- Refine requirements through

Overview

Goal: Meet Near-Term Decision Support Needs of Warfighte

- **Operational Needs**
- **Evolving Aerospace Force**
- **Roadmap to Satisfy Needs**

CAP Phases: Operational Needs

Situation Development: Evaluate possible scenarios

- **Update C2 and simulation database; look at options**

Crisis Development: Look at force structure and beddown

- **Planned at right level and in the right locations?**

COA Development: Recommend forces, locations, course to JFC

- **COA analysis through air art and computation**

COA Selection: JFACC develops Joint Air Ops Plan

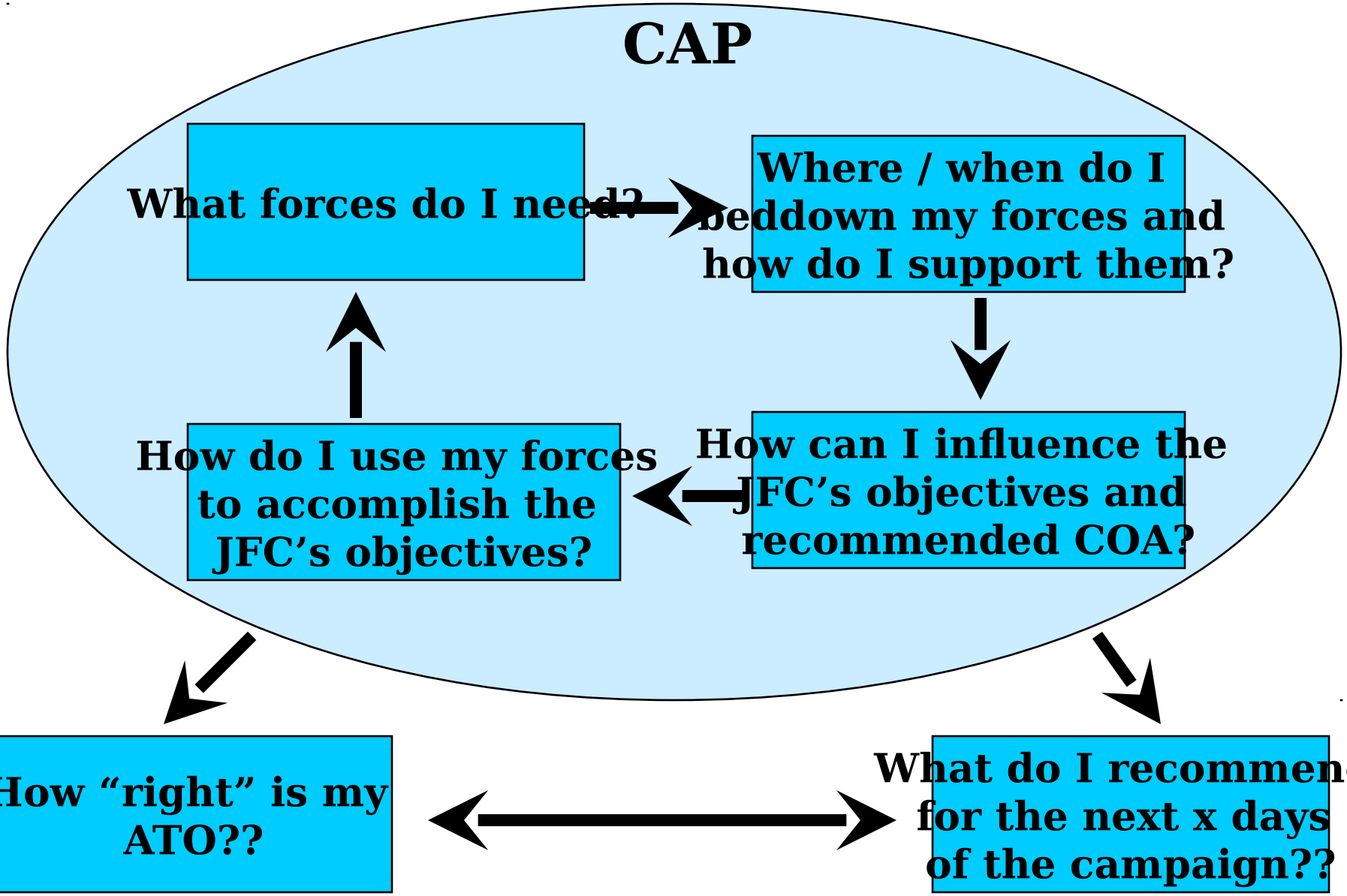
- **Air strategy and Centers of Gravity analyzed in terms of history and operational environment research**

Execution Planning: JFACC develops ATO 1, 2, 3…

- **Achieve JFC's goals by orchestrating desired effects**

M&S can clearly assist in creating a decision support envi

Operational Needs


CAP
What forces do I need?
Where / when do I beddown my forces and how do I support them?
How can I influence the JFC's objectives and recommended COA?
How do I use my forces to accomplish the JFC's objectives?
How "right" is my ATO??
What do I recommend for the next x days of the campaign??

Find the answers through air art, analysis, simulation, unforg

Operational Needs

- Hypothesis: The Air Boss needs tools to
  - Provide distributed, integrated training of warfighters: C2, flight missions, support forces
    - Readiness for planned or pop-up / crisis tasking
  - ***Support Crisis Action Planning****
    - ***Course of Action and beddown / support analyses****
  - ***Rehearse operations through simulation****
    - ***Covert rehearsal of pop-up / crisis operations****
    - ***Analysis of operational branches and sequels****
    - ***Test-fly the Air Tasking Order (ATO)****
  - Maintain force readiness when deployed

areas in need of decision support improvements

MS&A can clearly assist in creating a decision support env

Evolving to an EAF

- Commanders' NOTAM 98-4 on EAF:
  - "…emphasizes ***more rapid and effective operations****, with forces trained to task."
  - "…***geographically separated, but operationally-linked units**** to provide support to ongoing operations and ***rapid response to crises****."
  - "By January 2000…Successful implementation … will require innovative ideas…"

  ****areas in need of decision support improvements***

MS&A can clearly assist in creating a decision support env

Roadmap

- **Verify JFACC need for the best decision support tools that can be supported by M&S**
  - **Site visit to C2TIC and C2 Battle Lab (C2BL)**
    - **20 - 23 October 98**
  - **Brief ESC/DIS and C2BL M&S Symposium**
    - **4 - 5 November 98**
- **Propose initiative at EFX Initial Experiment Conference (15 - 19 November 98)**

Roadmap

- **Plan EFX initiative that includes simulations and reachback analysis support**
  - **Look for promising off-the-shelf, fielded tools**
  - **Highlight successful data management techniques and visualization systems critical to rehearsal**
  - **Look at forward support concept or reachback for M&S and analysis support**
- **Brief AFMSAWG in late FY 99 on progress, findings, and proposed FY00 planning**

Summary

- **Overall Operational Needs**
- **Expeditionary Aerospace Force (EAF)**
- **Roadmap to Satisfy Needs**

Provide NAF and AEF Commanders and the JFACC access to the right Decision Support tools and analysis at the right time.

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